

The Layers of the Atmosphere Review

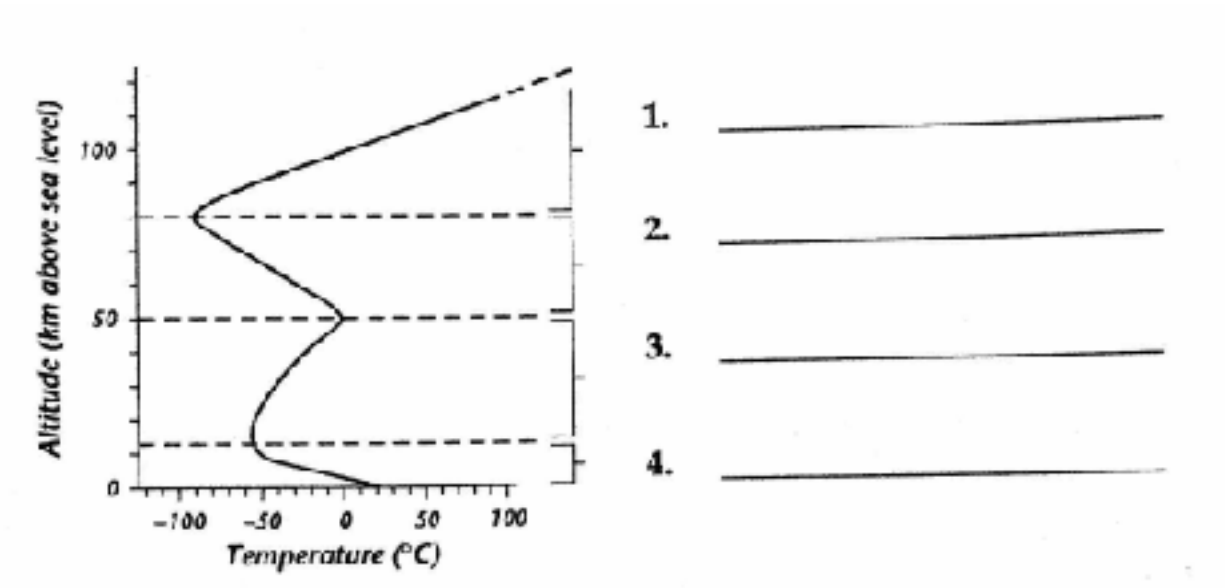
Name: _____

Date: _____ Score: _____

Earth's weather occurs in the troposphere, and air pressure is an important factor in weather. Was the data on air pressure in the table to make a graph showing how air pressure changes as you move upward in the troposphere.

Altitude (m above sea level)	Average Air Pressure (millibars)
0 (sea level)	1013.2
500	951.6
1,000	898.8
1,500	845.6
2,000	795.0
2,500	746.9
3,000	701.2
3,500	657.8
4,000	616.6
4,500	577.5
5,000	540.5
5,500	505.4
6,000	472.2
6,500	440.8
7,000	411.0
7,500	383.0
8,000	356.5
8,500	331.5
9,000	308.0
9,500	285.8
10,000	265.0

1. Describe the relationship between altitude and air pressure shown in the graph.
2. Estimate the average air pressure in a hole 500 meters below sea level.
3. If you were flying in a plane at an altitude of 1,500 meters, what would the air pressure outside the plane be? When you fly that high, why might your ears "pop"?
4. The graph below shows altitudes and temperatures for the four main layers of the atmosphere. Label the four layers, and then complete the statements that follow.



- The temperature in the atmosphere approaches -90°C at an altitude of about _____.
- the highest temperatures in the atmosphere occur in the _____.
- Temperatures generally rise as altitude increases in the _____ & _____ layers of the atmosphere.
- As you move up through the mesosphere, the temperature _____.